Diego G. Dàvila

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# Education

**Post-Baccalaureate Studies** (Non-Degree)

University of Pennsylvania, 4.00 January 2018-

**Bachelor of Arts in Psychology**

Boston University, 3.82 (Cumulative GPA) September 2013 - May 2017

3.94 (Major GPA)

*Magna Cum Laude*

# Grants & Funding

* NIH PA-18-906 - Research Supplement to Promote Diversity in Health-Related Research,   
  National Institute of Health*,* June 2019 - June 2020 ($50,000)- Awarded atraining grant funding a computational methods fellowship

# Research Experience

**Pre-Doctoral Research Fellow (Funded)** June 2019-

Brain Behavior Lab, University of Pennsylvania School of Medicine

PI: Theodore D. Satterthwaite, MD, MA

* Fellowship in computational methods and advanced statistical analysis techniques
* Conduct research examining the link between functional brain connectivity and irritability under the guidance of a mentorship team
* Train in network neuroscience and advanced analysis techniques, and attend weekly seminars, presentations, and workshops on relevant topics
* Process large multi-modal imaging data sets using FreeSurfer, ANTs, fMRIPREP, and the eXtensible Connectivity Pipelines (XCP)
* Develop software to process large sets of inventory, clinical, and cognitive data
* Lead the curation of a large dataset consisting of clinical, behavioral, cognitive, imaging, and physiological data in Flywheel (Informatics Platform) consistent with BIDS format
* Conduct data analysis using advanced statistical methods

**Clinical Research Coordinator** October 2017 to June 2019

Brain Behavior Lab, University of Pennsylvania School of Medicine

PI: Theodore D. Satterthwaite, MD, MA

* Responsible for the daily operations of a NIMH funded protocol examining brain network development in youth and adolescence via multi-modal MR Imaging
* Administered the Child and Adolescent Psychiatric Assessment (CAPA), the Computerized Neurocognitive Battery (CNB), and self-report questionnaires
* Screened participants for MRI eligibility, and oversaw scanning procedures
* Created and submitted Institutional Review Board (IRB) initial & continuing reviews, and amendments for multiple protocols
* Adapted functional MRI n-back working memory tasks for use with protocol sequences
* Bridged the gap between data acquisition and analysis by curating and preprocessing collected imaging, behavioral, cognitive, and clinical data into analyzable and de-identified formats

**Research Assistant** August 2016 to May 2017

Child and Family Health Lab, Boston University

PI: Kristin Long, PhD

* Assisted in a project developing English and Spanish screening tools for early identification of siblings of children with cancer who are at elevated risk for psychopathology
* Assisted in a project examining the role of culture and family context in care for children with autism, in order to better inform care and research for an increasingly culturally diverse population
* Maintained the entry and organization of data collected during study visits
* Assisted in at-home research interviews and assessments with participant families
* Transcribed and translated research interviews, and assisted in the coding of interview content
* Presented on relevant topics, and conducted literature reviews

**Research Assistant & Programmer** June 2015 to June 2016

Cognitive Neurophysiology Lab, Boston University

PI: the late Jacqueline Liederman, PhD

* Worked closely with Dr. Liederman in the design of a lexical decision paradigm based on the Bayesian Reader model and recent neuroscience findings aimed at elucidating the computational processes underlying reading
* Designed, programmed, and deployed a novel task to be used in the measurement of laterality in phonological decoding performance
* Trained to administer the Kaufman Brief Intelligence Scale (K-BIT), and the Nelson-Denny Reading Test (NDRT)
* Presented on relevant topics and conducted literature reviews
* Conducted a directed study of Bayesian modeling of reading, language processing, and lexical decision making & related experimental design

# Publications

Adam R. Pines, …, **Diego G. Dávila**, … , Danielle S. Bassett, David R. Roalf, & Theodore D. Satterthwaite: Advantages of Multi-shell Diffusion for Studies of Brain Development in Youth, submitted

Robert J. Jirsaraie, …, **Diego Davila**, …, Daniel H. Wolf, Christos Davatzikos, & Theodore D. Satterthwaite: Accelerated Cortical Thinning within Structural Brain Networks is Associated with Irritability in Youth, Neuropsychopharmacology, Accepted

# Talks & Presentations

* **Culturally Based Limitations Of The Affordable Care Act**, Child and Family Health Lab, Boston University (2017)
* **Considerations For Developing Imaging-Informed Cognitive Tasks**, Cognitive Neurophysiology Lab, Boston University (2016)
* **A Task For Measuring Laterality In Phonological Decoding Performance**, Cognitive Neurophysiology Lab, Boston University (2015)

# Skills

**Programming**: R, Python, Java, Bash (Unix Shell), Presentation, E-Prime

**MRI Modalities:** Structural MRI, Diffusion Weighted Imaging, Functional MRI, Arterial Spin Labeling, Glutamate Chemical Exchange Saturation Transfer (GluCEST), Quantitative Susceptibility Mapping (QSM)

**Neuroimaging Processing & Informatics:** Brain Imaging Data Structure (BIDS), FreeSurfer, ANTs, fMRIPREP, eXtensible Connectivity Pipelines (XCP), Flywheel, XNAT

**Assessment:** Computerized Neurocognitive Battery (CNB), The Child and Adolescent Psychiatric Assessment (CAPA), Kaufman Brief Intelligence Scale (K-BIT), Nelson-Denny Reading Test (NDRT)

# Certifications & Trainings

* HIPAA
* CITI (Human Subjects, Biomedical)
* Level 1 MRI
* Good Clinical Practice

# Relevant Coursework

**Graduate:**

* Statistical Computing with R (The Wharton School, University of Pennsylvania)
* Foundations of Bioethics (University of Pennsylvania)
* Psychology of Decisions
* Cross-Cultural Psychology
* Directed Study

**Undergraduate:**

* Evolutionary Psychology
* Human Biology
* Physiological Psychology
* Introduction to Computer Science I
* Introduction to Computer Science II
* Drugs & Behavior
* Experimental Design in Psychology (Intensive Research Statistics)
* Psychology of Perception
* Psychology of Learning
* Psychology of Personality
* Introduction to Cognitive Psychology
* Developmental Psychology
* Abnormal Psychology
* Experimental Psychology of Personality
* Social Psychology
* Introduction to Sociology
* Introduction to Microeconomics
* Introduction to Philosophy

# Memberships & Additional Honors

**Dean’s List**,Boston University 2014-2017

**Psi Chi** (Honor Society in Psychology) 2015-

# Languages

**English**: Native Language

**Spanish**: Native Language

**Italian**: Professional Fluency

# Volunteer Experience

**Volunteer**  May 2017 to October 2017  
Various Hospice Centers,North Carolina

* Provided assistance, and emotional support, to patients receiving end-of-life palliative care

# References

**Theodore Satterthwaite, MD, MA**, Assistant Professor

Department of Psychiatry

University of Pennsylvania School of Medicine

Email: [sattertt@pennmedicine.upenn.edu](mailto:sattertt@pennmedicine.upenn.edu)

**Kristin Long, PhD**, Assistant Professor

Department of Psychological and Brain Sciences

Boston University

Email: [kalong@bu.edu](mailto:kalong@bu.edu)

**Daniel Wolf, MD, PhD,** Associate Professor

Department of Psychiatry

University of Pennsylvania School of Medicine

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